

JOURNAL OF CELLULAR PHYSIOLOGY

COPYRIGHT © THE WISTAR INSTITUTE PRESS 1978

VITTORIO DEFENDI, *Managing Editor*

New York University Medical Center
Department of Pathology
550 First Avenue
New York, New York 10016

EDITORS

RENATO BASERGA
Temple University

P. I. MARCUS
University of Connecticut

E. A. MCCULLOCH
University of Toronto

P. SIEKEVITZ
The Rockefeller University

PAUL M. KRAEMER
University of California

ASSOCIATE EDITORS

JOHN W. ADAMSON
Veterans Administration Hospital
Seattle

CLAUDIO BASILICO
New York University

L. GOLDSTEIN
University of Colorado

H. GREEN
Massachusetts Institute of
Technology

KURT HIRSCHHORN
Mount Sinai School of Medicine

RU CHIH C. HUANG
The Johns Hopkins University

HERMAN M. KALCKAR
Harvard Medical School

R. S. KROOTH
Columbia University

I. LIEBERMAN
University of Pittsburgh

D. MARSLAND
Marine Biological Laboratories

GEORGE M. MARTIN
University of Washington
Seattle

D. MAZIA
University of California

M. L. MENDELSON
Lawrence Livermore Laboratory

DONALD METCALF
Walter and Eliza Hall Institute
Australia

P. G. W. PLAGEMANN
University of Minnesota

ASER ROTHSTEIN
The Hospital for Sick Children
Research Institute
Toronto

CLIFFORD STANNERS
The Ontario Cancer Institute

H. SWIFT
University of Chicago

H. M. TEMIN
University of Wisconsin

L. WARREN
University of Pennsylvania

L. WEISS
Roswell Park Memorial Institute

VOLUME 95

APRIL, MAY, JUNE 1978

Published by

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

PHILADELPHIA, PA.

No. 2 MAY 1978

C. P. STANNERS, T. M. WIGHTMAN AND J. L. HARKINS. Effect of Extreme Amino Acid Starvation on the Protein Synthetic Machinery of CHO Cells.....	125
HARRIET C. ISOM AND LEWIS I. PIZER. Growth Dependence of Phosphoglyceric Acid Dehydrogenase Activity in Cultured Rat Liver Cells	139
MARK A. WALLENBROCK AND JERALD J. KILLION. Isolation of High-rate DNA Synthetic Cells by Con A Chromatography.....	151
DAVID KYNER, JUDITH CHRISTMAN, GEORGE ACS, SELMA SILAGI, ELIZABETH W. NEWCOMB AND SAMUEL C. SILVERSTEIN. Co-Cultivation of Tumorigenic Mouse Melanoma Cells with Cells of a Non-Tumorigenic Subclone Inhibits Plasminogen Activator Expression by the Melanoma Cells	159
ELIZABETH W. NEWCOMB, SAMUEL C. SILVERSTEIN AND SELMA SILAGI. Malignant Mouse Melanoma Cells Do Not Form Tumors When Mixed with Cells of a Non-Malignant Subclone: Relationships between Plasminogen Activator Expression by the Tumor Cells and the Host's Immune Response.....	169
JOHN P. BADER, ROBERT SEGE AND NANCY R. BROWN. Sodium Concentrations Affect Metabolite Uptake and Cellular Metabolism	179
PIRKKO POHJANPELTO. Stimulation of DNA Synthesis in Human Fibroblasts by Thrombin.....	189
AHARON AHARONOV, ISRAEL VLODAVSKY, REBECCA M. PRUSS, C. FRED FOX AND HARVEY R. HERSCHMAN. Epidermal Growth Factor Induced Membrane Changes in 3T3 Cells.....	195
ROBERT DUBROW, ARTHUR B. PARDEE AND ROBERT POLLACK. 2-Amino-Isobutyric Acid and 3-0-Methyl-D-Glucose Transport in 3T3, SV40-transformed 3T3 and Revertant Cell Lines	203
RUTH GELLER, ROBERT LEVENSON AND DAVID HOUSMAN. Significance of the Cell Cycle in Commitment of Murine Erythroleukemia Cells to Erythroid Differentiation.....	213
P. FUCHS, M. SPIEGELSTEIN, M. HAIMSOHN, J. GITELMAN AND A. KOHN. Early Changes in the Membrane of HeLa Cells Adsorbing Sendai Virus under Conditions of Fusion.....	223
A. MACIEIRA-COELHO, C. DIATLOFF, M. BILLARD, B. FERTIL, E. MALAISE AND D. FRIES. Effect of Low Dose Rate Irradiation on the Division Potential of Cells In Vitro. IV. Embryonic and Adult Human Lung Fibroblast-like Cells.....	235

No. 3 JUNE 1978

LILLY Y. W. BOURGUIGNON, K. T. TOKUYASU AND S. J. SINGER. The Capping of Lymphocytes and Other Cells, Studied by an Improved Method for Immunofluorescence Staining of Frozen Sections	239
TADASHI SAKAI, DAVID W. LUNDGREN AND TAKAMI OKA. Polyamine Biosynthesis and DNA Synthesis in Cultured Mammary Gland Explants from Virgin Mice.....	259

HÉCTOR R. MAZZEI AND FRANCISCO BERTINI. The Development of Lysosomal Apparatus. I. Lysosomal Enzyme Activities in the Liver of Mice at Perinatal Stages and Those of Their Mothers.....	269
S. L. ROSENTHAL, D. ZUCKER AND R. L. DAVIDSON. Dissociation of Plasminogen Activator from the Transformed Phenotype in a 5-Bromodeoxyuridine Dependent Mutant of Syrian Hamster Melanoma Cells.....	275
J. MORONEY, A. SMITH, L. D. TOMEI AND C. E. WENNER. Stimulation of $^{86}\text{Rb}^+$ and $^{32}\text{P}_i$ Movements in 3T3 Cells by Prostaglandins and Phorbol Esters..	287
JOSE A. MELERO AND V. FINCHAM. Enhancement of the Synthesis of Specific Cellular Polypeptides in a Temperature-sensitive Chinese Hamster Cell Line (K12) Defective for Entry into S Phase	295
MILTON ADESNIK AND HARRIET SNITKIN. Induction of Erythroid Differentiation in Friend Leukemia Cells by Bromodeoxyuridine	307
D. BRANCA, G. SCUTARI AND N. SILIPRANDI. Diamide Effect on the Hypertonic Calcium Uptake by Rat Red Blood Cells.....	319
YUTAKA NISHIOKA AND SAUL SILVERSTEIN. Alterations in the Protein Synthetic Apparatus of Friend Erythroleukemia Cells during Their Erythroid Differentiation.....	323
WALTER N. HITTELMAN AND POTU N. RAO. Mapping G1 Phase by the Structural Morphology of the Prematurely Condensed Chromosomes	333
RYU-ICHIRO HATA AND BEVERLY PETERKOFISKY. Retention of Transformant Specific Type III Collagen in Dibutyryl cAMP Treated Kirsten Sarcoma Virus Transformed BALB 3T3 Cells and in a Flat Revertant	343
<i>Brief Communications</i>	
ENDRE KELEMEN, ERNŐ GULYA AND KATALIN VASS. Ontogeny of Human Neutrophil Granulocyte Alkaline Phosphatase.....	353
CONFERENCE ON CONDITIONAL MUTANTS OF THE CELL CYCLE	
Preface.....	358
Participants	359
LOUIS SIMINOVITCH AND LARRY H. THOMPSON (<i>Rapporteur</i> : ERNEST H. Y. CHU). The Nature of Conditionally Lethal Temperature-Sensitive Mutations in Somatic Cells.....	361
CLAUDIO BASILICO (<i>Rapporteur</i> : HARVEY L. OZER). Selective Production of Cell Cycle Specific <i>ts</i> Mutants.....	367
RENATO BASERGA (<i>Rapporteur</i> : ARTHUR B. PARDEE). Resting Cells and the G_1 Phase of the Cell Cycle.....	377
ARNOLD J. LEVINE. Approaches to Mapping the Temporal Events in the Cell Cycle Using Conditional Lethal Mutants.....	387
JOHN R. PRINGLE. The Use of Conditional Lethal Cell Cycle Mutants for Temporal and Functional Sequence Mapping of Cell Cycle Events..	393
CLIFFORD P. STANNERS (<i>Rapporteur</i> : SAUL KIT). Characterization of Temperature-Sensitive Mutants of Animal Cells.....	407
Erratum (Li, et al. (1978) 94: 197-204).....	417
Index to Volume 95.....	419

